### INTERNATIONAL SEARCH REPORT

International application No. PCT/KR2005/000140

# CLASSIFICATION OF SUBJECT MATTER

# IPC7 H04L 12/24

According to International Patent Classification (IPC) or to both national classification and IPC

#### FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols) IPC7 H04L, H04Q, H04M, G06F

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched Korean Patents and applications for Inventions since 1975 Korean Utility models and applications for Utility models since 1975

Electronic data base consulted during the intertnational search (name of data base and, where practicable, search terms used)

#### DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	KR 2003-21536 (SAMSUNG Co Ltd) 15 MAR 2003 see the whole documents	1
Y	US 6.483,563 B1 (NEC Corp.) 20 AUG 2002 see the whole documents	.1.
A	WO 02/77830 (MITSUBISHI) 1 JUL 2004 see the whole documents	1
A	'US 6577643 ( Lucent Technology ) 10 JUN 2003 see the whole documents	1
Α .	US 6404861 (e-Cell Technology ) 11 JUN 2002 see the whole documents	1

	Further documents are listed in the continuation	n of Box C.
- 1	Further documents are listed in the continuation	n of E

See patent family annex.

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Date of mailing of the international search report

Date of the actual completion of the international search

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# INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
KR 2003-21536	15 MAR 2003	NONE	
US 6,483,563 B1		P 12-163344 16 J A 21 JUN 2000	UN 2000
WO 02/77830	JP 14290403	2004-128114 A1 1 4 OCT 2002 A1 17 DEC 2003	JUL 2004
US 6577643	US 6377982 I US 2002–899 JP 11289353	6512754 B1 28 JA B1 23 APR 2002 958 A1 11 JUL 2002 19 OCT 1999 A2 19 MAY 1999	N 2003
US 6404861	11 JUN 2002 WC	200131969 A1 03 N B1 05 NOV 2002	1AY 2001.